

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:)	
)	Group Art Unit: Unassigned
Hardayal Singh Gill)	
)	Examiner: Unassigned
Application No. Unassigned)	
)	Atty. Docket No. HIT1P034/
)	HSJ9-2003-0163US1
Filed: Herewith)	
)	Date: July 30, 2003
For: BALLISTIC GMR STRUCTURE USING)	
NANOCONSTRUCTION IN SELF-)	
<u>PINNED LAYERS</u>)	

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 on July 30, 2003.

Signed:


Erica L. Farlow

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.56 AND 1.97(b)**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached PTO Form 1449, copies of which are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§ 1.56 and 1.97. The Examiner is requested to make these references of official record in this application.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is believed to be filed before the mailing date of a first Office Action on the merits. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-2587 (Order No. HIT1P034/HSJ9-2003-0163US1).

Respectfully submitted,
Silicon Valley IP Group, PC

A handwritten signature in black ink, appearing to read 'D. Kotab', with a stylized flourish at the end.

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Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	Application No.:
	HIT1P034/HSJ9-2003-0163US1	Unassigned
	Applicant:	
	Hardayal Singh Gill	
	Filing Date:	Group Art Unit:
	Herewith	Unassigned

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	A	5,695,864	12/09/1997	Slonczewski	428	212	09/28/1995
	B	5,936,402	08/10/1999	Schep et al.	324	252	06/11/1997
	C	6,187,458	02/13/2001	Hashizume et al.	428	692	07/06/1998
	D	2002/0036876	03/28/2002	Kawawake et al.	360	324.1	09/04/2001
	E	6,411,478	06/25/2002	Mao et al.	360	324.2	02/08/2000
	F	6,560,077	05/06/2003	Fujiwara et al.	360	324.1	01/10/2000
	G						

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	H	02/095434	28.11.2002	WO	G01R	33/09	X	
	I	2003-8105	10.01.2003	JP	H01L	43/08	X	

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	J	Ferreira, M.S.; "Enhanced Magnetoresistance and Spin-Filter Effects in Magnetic Heterostructures", J.Phys.: Condens. Matter 12 (2000) L373-L378, 2000
	K	Munoz, M.; "Ballistic Magnetoresistance in a Nanocontact Between a Ni Cluster and a Magnetic Thin Film", Applied Physics Letters, Volume 79, Number 18, October 29, 2001
	L	Zhao, Y.W; "From Ballistic to Non-Ballistic Magnetoresistance in Nanocontacts: Theory and Experiments", Journal of Magnetism and Magnetic Materials 223 (2001) 169-174, 2001
	M	Garcia, N.; "Ballistic Magnetoresistance in different Nanocontact Configurations: a Basis for Future magnetoresistance Sensors", Journal of Magnetism and Magnetic Materials 240 (2002) 92-99, 2002
	N	Chopra, H.; "Ballistic Magnetoresistance Over 300% in Ni Nanocontacts at Room Temperatures", The American Physical Society, Physical Review B 66, 020403 (R) (2002)
	O	Price, E.; "Magnetoresistance in Ballistic Transport Devices," Center for Magnetic Recording Research
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.